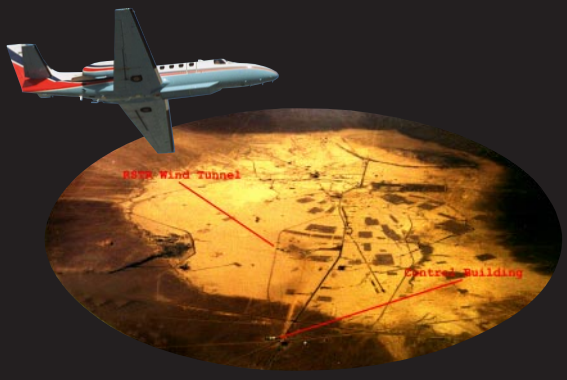
Remote Sensing Test Range (RSTR) at the Nevada Test Site

Developed by a multidisciplinary group at LLNL, the Remote Sensing Test Range (RSTR) is located within the Hazardous Materials Spill Center (HAZMAT) at the Nevada Test Site (NTS). Under realistic atmospheric conditions, the RSTR provides remotely controlled, metered releases of chemicals as a well-characterized gas plume. The RSTR facilities consist of several chemical release systems, including a wind tunnel and a heated-air stack. The RSTR contains five sensor-van fielding sites and has been used as a source for remote sensor testing from airborne platforms.

The exhaust from the RSTR wind tunnel is a metered 7-ft-diameter release of chemicals in a well-characterized gas plume 20 ft above the ground.

The RSTR heated-air stack facility evaporates chemicals, mixes them with an air stream, and releases this mixture 50 ft above the ground in a 2-ft-diameter plume. Like the factory stack that it simulates, its plume is strongly affected by the wind.



Aerial view of RSTR release sources at Frenchman Flat, NTS

View of user trailers monitoring the chemical concentrations in the RSTR gas plumes.

The RSTR facility enables the use of hazardous chemicals, which could reliably be identified and monitored for future needs. NTED has been supplying engineering support by designing hardware and overseeing construction and operation.

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